### PATENT COOPERATION TREATY

## **PCT**

# TRANSLATION INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

|  | s or agent's file reference  241.1PCT   | FOR FURTHER A   | CTION                     | See Form PCT/IPEA/416   |  |  |  |  |  |
|--|---|---|---------------------------|---|--|--|--|--|--|
| Internation  | nal application No.   | International filing da                               | te (day/month/year)       | Priority date (day/month/year)  |  |  |  |  |  |
| PCT/EP2004/010368 16.09.20   |   |   | 4                         | 16.10.2003  |  |  |  |  |  |
| International Patent Classification (IPC) or national classification and IPC |   |   |                           |   |  |  |  |  |  |
| B65H63/06, D01 H13/22, D02G1/16, G01 B11/10, G01 N21/89,                     |   |   |                           |   |  |  |  |  |  |
|  | N33/36  |   |                           |   |  |  |  |  |  |
| Applicant  | ER GMBH & CO. K   | c   |                           |   |  |  |  |  |  |
| BAOK   | ER GEDI & CO. R   | G   |                           |   |  |  |  |  |  |
|  |   |   |                           |   |  |  |  |  |  |
|  | . This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.                                       |   |                           |   |  |  |  |  |  |
| 2. 7   | This REPORT consists of a total o   | <b>.</b>  | sheets, including         | g this cover sheet.   |  |  |  |  |  |
| 3. Т   | This report is also accompanied by  | ANNEXES, comprising:                                  |                           |   |  |  |  |  |  |
|  | a. (sent to the applicant a   | nd to the International Bu                            | reau) a total of 2        | sheets, as follows:   |  |  |  |  |  |
|  | sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). |   |                           |   |  |  |  |  |  |
|  | •   | ersede earlier sheets, but                            | which this Authority cons | siders contain an amendment that goes beyond  |  |  |  |  |  |
|  |   |   |                           | in item 4 of Box No. I and the Supplemental   |  |  |  |  |  |
| ļ ,  | b. (sent to the Internation   | al Bureau only) a total of                            | (indicate type and number | r of electronic carrier(s))   |  |  |  |  |  |
|  | (3013 10 130 130 130 130 130 130 130 130  | 2, ,  | (                         |   |  |  |  |  |  |
|  | related thereto, in compu   | ter readable form only, a                             | s indicated in the Supple | _ , containing a sequence listing and/or tables<br>mental Box Relating to Sequence Listing (see |  |  |  |  |  |
|  | related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see<br>Section 802 of the Administrative Instructions).   |   |                           |   |  |  |  |  |  |
| 4. 7   | Γhis report contains indications rel  | ating to the following iten                           | ns:                       |   |  |  |  |  |  |
|  | Box No. I Basis of  | he report   |                           |   |  |  |  |  |  |
| [  | Box No. II Priority   |   |                           |   |  |  |  |  |  |
| [  | Box No. III Non-esta  | blishment of opinion with                             | regard to novelty, invent | ive step and industrial applicability   |  |  |  |  |  |
|  | Box No. IV Lack of t  | unity of invention                                    |                           |   |  |  |  |  |  |
|  | Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement   |   |                           |   |  |  |  |  |  |
| [  | Box No. VI Certain d  | ocuments cited  |                           |   |  |  |  |  |  |
| [  | Box No. VII Certain defects in the international application  |   |                           |   |  |  |  |  |  |
|  | Box No. VIII Certain o  | Certain observations on the international application |                           |   |  |  |  |  |  |
| Date of sul  | bmission of the demand  |   | Date of completion of thi | is report   |  |  |  |  |  |
|  |   |   | -                         |   |  |  |  |  |  |
| Name and mailing address of the IPEA/EP                                      |   |   | Authorized officer        |   |  |  |  |  |  |
|  |   |   |                           |   |  |  |  |  |  |
|  |   |   |                           |   |  |  |  |  |  |
| Faccimile No.  |   | Talanhana No  |                           |   |  |  |  |  |  |

#### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/EP2004/010368

| Box | k No. I           | I Basis of the report   |                                   |  |
|-----|-------------------|---|-----------------------------------|--|
| 1.  |                   | th regard to the language, this report is based on the international cated under this item.   | al application in the language in | which it was filed, unless otherwise                 |
|     |                   | This report is based on translations from the original language which is the language of a translation furnished for the purpo                |                                   | ,  |
|     |                   | international search (Rule 12.3 and 23.1(b))  |                                   |  |
|     |                   | publication of the international application (Rule 12.4)  |                                   |  |
|     |                   | international preliminary examination (Rule 55.2 and/o  | r 55.3)                           |  |
| 2.  |                   | th regard to the <b>elements</b> of the international application, this re<br>eiving Office in response to an invitation under Article 14 are |                                   |  |
|     | this              | report):  |                                   |  |
|     |                   | the international application as originally filed/furnished   |                                   |  |
|     |                   | the description:  |                                   |  |
|     |                   | pages <u>2-5</u>  | 1 - 11 - 41 - A - 41 - 14         | as originally filed/furnished 15.03.2005 with letter |
|     |                   | pages* 1,1a pages*  |                                   |  |
|     | $\square$         |   | received by this Authority on     |  |
|     |                   | the claims:   |                                   |  |
|     |                   | nos. 1–9<br>nos.*   |                                   |  |
|     |                   | nos.*   |                                   |  |
|     |                   | nos.*   |                                   |  |
|     | $\boxtimes$       | the drawings:   |                                   |  |
|     |                   | •   |                                   | as originally filed/furnished                        |
|     |                   | sheets*   |                                   |  |
|     |                   | sheets*   | •                                 |  |
|     | П                 | a sequence listing and/or any related table(s) – see Supplemen  |                                   |  |
| 3.  | $\overline{\Box}$ | The amendments have resulted in the cancellation of:  |                                   |  |
| ٥.  |                   | the description, pages  |                                   |  |
|     |                   | the claims, nos.  |                                   |  |
|     |                   | 41 - 4  |                                   |  |
|     |                   |   |                                   |  |
|     |                   | any table(s) related to sequence listing (specify):   |                                   |  |
| 4.  | П                 | This report has been established as if (some of) the amendm   |                                   |  |
|     |                   | they have been considered to go beyond the disclosure as file   | •                                 |  |
|     |                   | the description, pages  |                                   |  |
|     |                   | the claims, nos.  |                                   |  |
|     |                   | the drawings, sheets/figs the sequence listing (specify):   |                                   |  |
|     |                   |   |                                   |  |
| *   | If ite            | tem 4 applies, some or all of those sheets may be marked "super   |                                   |  |

#### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/EP2004/010368

| Вох |                              |        | ticle 35(2) with regard to novelty, inventive step or industrial applicability; oporting such statement |     |
|-----|------------------------------|--------|---|-----|
| 1.  | Statement                    |        |   |     |
|     | Novelty (N)                  | Claims | 1-9   | YES |
|     |                              | Claims |   | NO  |
|     | Inventive step (IS)          | Claims | 1-9   | YES |
|     |                              | Claims |   | NO  |
|     | Industrial applicability (IA | Claims | 1-9   | YES |
|     |                              | Claims |   | NO  |
|     |                              |        |   |     |

- 2. Citations and explanations (Rule 70.7)
  - 1. Prior art

This report makes reference to the following documents:

**D1:** DE 100 26 389 A1

**D2:** US-A-3 303 698

**D3:** JP 02 221427 A

**D4:** JP 06 128821 A

#### 2. Technical field

The invention relates to a method of measuring the diameter and length of effects on yarn.

- Novelty and inventive step (PCT Article 33(1) to (3))
- The subject matter of claims 1 to 9 is novel and involves an inventive step for the following reasons:
- 2. **D1** is considered to be the closest prior art. D1 describes that the beginning and the end of an effect are defined by the fulfillment of a first and second diameter criterion. The effect length is determined from this beginning and end. A

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

diameter average is formed using the values in the effect region.

- 3. The method according to **claim 1** differs from **D1** in that, between the beginning and end, a definable number of widest diameters is determined and in that the average value of these determined widest diameters is formed. This average value defines the diameter of the effect.
- 4. This method solves the problem of measuring the effect diameter irrespective of natural diameter fluctuations in the effect region.
- 5. Such a method of measuring effect diameters is neither known nor obvious from any of the available documents (D1-D4). Although D1 mentions that the numbers of maxima and minima in certain sections of the diameter signal are used, this is only for the purpose of making a comparison with pattern signals possible. D1 does not mention the use of these maxima and minima for forming an average value.
- 6. Claims 2 to 9 are dependent on claim 1 and therefore also meet the PCT requirements for novelty and inventive step.
- 4. Industrial applicability (PCT Article 33(1) and (4))
  The present invention is clearly industrially applicable.